PROPOSED USE OF THE PLENARY POWERS TO DESIGNATE A TYPE SPECIES FOR THE GENUS "DACTYLIOCERAS" HYATT, 1867 (CLASS CEPHALOPODA, ORDER AMMONOIDEA : JURASSIC) IN HARMONY WITH ACCUSTOMED USAGE

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(Commission Reference : Z.N.(S.) 956)

The purpose of the present application is to ask the International Commission to use its Plenary Powers to designate for the genus *Dactylioceras* Hyatt, 1867 (Class Cephalopoda, Order Ammonoidea) a type species in harmony with accustomed usage, and thus prevent a change in the name of one of the best known Jurassic ammonites in the world.

2. In 1867 Hyatt proposed the name *Dactylioceras* for four species of ammonite listed in the following order: *Ammonites communis* Sowerby, *A. holandrei* d'Orbigny, *A. annulatus* Sowerby and *A. braunianus* d'Orbigny (Hyatt, 1867 : 95). On account of its excellent preservation in large numbers in the Upper Lias, the genus has become one of the best known of all Jurassic ammonite genera. Specimens of *Dactylioceras* feature frequently in elementary teaching collections as typical of the whole group of ammonites.

3. In 1911 Buckman selected *A. annulatus* Sowerby as type species of the genus (Buckman, 1911 : *v*).

4. Sowerby (J.) (1819 : 41, 42 ; pl. 222) on introducing the species *A. annulatus* figured and described four specimens. One of these (fig. 5) was chosen by Oppel (1856 : 255) as lectotype.

5. All four syntypes are now in the British Museum (Natural History). The lectotype is a thick-whorled specimen which is subjectively identifiable with *Ammonites crosbeyi* Simpson, 1843. This species has never been regarded a member of the genus *Dactylioceras*. It has variously been referred to *Coeloceras* Hyatt, 1867, *Catacoeloceras* Buckman, 1923 and *Nodicoeloceras* Buckman, 1926.

6. In spite of the existence of the lectotype, that specimen has never yet been used to interpret the species *A. annulatus.* No figure of the lectotype has been published since that of Sowerby (1818).

7. Buckman interpreted the species *A. annulatus* from a specimen he figured in his *Type Ammonites* (1927 : pl. 700) which is neither conspecific nor congeneric with the lectotype.

8. The other three syntypes of *A. annulatus* are not of the same species or genus as the lectotype, nor do they themselves represent a single species according to present-day concepts.

9. Despite Oppel's formal selection of a lectotype, one of these syntypes (pl. 222, fig. 2, from Whitby) was for many years regarded as " typical " of the species *A. annulatus.* Consequently this name was used before 1910 for a species which is now known as *Dactylioceras tenuicostatum* (Young & Bird). It was presumably this interpretation of the species *Ammonites annulatus* that was intended by Hyatt when he listed the name under *Dactylioceras.* It is certainly one of the commonest species of the genus as it has so far been understood. However, study of the syntype in question shows that it has been wrongly interpreted. In the present author's opinion it is a member of the species *A. semicelatus* Simpson, not *A. tenuicostatus* Young & Bird.

10. The genus *Dactylioceras* as currently understood embraces, amongst many others, the species now known as *D. tenuicostatum* (Young & Bird) (olim " *D. annulatum* "), the specimen misidentified by Buckman (1927) as *D. annulatum,* the three other species listed by Hyatt (1867) as members of the genus (*D. commune, D. holandrei* and *D. braunianum*) and the three syntypes of *A. annulatus,* but not the species *A. annulatus* as interpreted by the lectotype.

11. Buckman (1926–1927 : 41–46) split up the Upper Liassic members of the family DACTYLIOCERATIDAE into a large number (29) of genera, many of which are now regarded as subjective junior synonyms of *Dactylioceras.* (See, for example, Donovan, 1954 : 5.) Of the species listed by Hyatt under *Dactylioceras, A. communis* was made type of the genus *Koinodactylites* Buckman, 1927, *A. braunianus* type of *Zugodactylites* Buckman, 1926, and *A. holandrei* was referred to the genus *Arcidactylites* Buckman, 1926. In addition to these, the species *A. tenuicostatus* (which, as we have seen, was for long a species that went under the name of *D. annulatum*) was made type of the genus *Tenuidactylites* Buckman, 1926, and *A. semicelatus* (with which one of Sowerby's syntypes is subjectively identified) was made the type species of the genus *Kryptodactylites* Buckman, 1926. All of these so-called genera are currently regarded as synonyms of *Dactylioceras.*

12. In order to preserve the name *Dactylioceras* for the group of ammonites which it has always been used to designate, it will be necessary to invoke the Plenary Powers either to set aside Oppel's selection of a lectotype for *A. annulatus*, or to set aside Buckman's designation of *A. annulatus* as type of the genus.

13. Of these alternative courses, the first would be likely to lead to confusion since the name *A. annulatus* has, pending a more adequate description of the lectotype, passed out of current usage. To resurrect the name to indicate a common or well known species (e.g. either of those now known as *D. tenuicostatum* or *D. semicelatum*) would lead to name changes of the most objectionable type. Fortunately Oppel's designated lectotype represents a rare species, and its subjective identification with *A. crosbeyi* Simpson, if confirmed, would not necessitate more than the suppression of the specific name *crosbeyi* as a junior subjective synonym. This name has never been well known or widely used.

14. The second alternative, the substitution of another species as type species of the genus *Dactylioceras*, would lead to no name changes. One of Buckman's generic names would become a junior objective synonym of *Dactylioceras* instead of a junior subjective synonym, as at present.

15. Of the four original species listed by Hyatt under *Dactylioceras*, and which therefore form syntype-species, the best known and most abundant, and the species most often regarded as "typical" of *Dactylioceras* is *A. communis*. The two syntypes of this species are preserved in the British Museum (Natural History). Photographs of one of these (Brit. Mus., Sowerby coll., No. 43895a) have been published by Crick (1910 : 145, fig. 1) and by Arkell (1956, pl. 33, figs. 4a, 4b), and this specimen has been designated as the lectotype by Arkell (1956 : 764).

16. If *A. communis* becomes type species of *Dactylioceras*, the name *Koinodactylites* Buckman, 1927, will become a junior objective synonym, as it has the same type species.

17. The family DACTYLIOCERATIDAE is based on the genus *Dactylioceras*. It was first proposed by Hyatt in 1867 in the incorrect form " DACTYLOIDAE " (Hyatt, 1867 : 87, 94).

18. In view of the foregoing facts, I now request the International Commission :—

(1) to use its Plenary Powers (a) to set aside all type-selections for the genus *Dactylioceras* Hyatt, 1867, made prior to the Ruling now asked for, and (b), having done so, to designate *Ammonites communis* Sowerby (J.), 1815, as the type species of the foregoing genus ;

(2) to place the name *Dactylioceras* Hyatt, 1867 (gender : neuter) (type species, by designation under the Plenary Powers under (1) (b) above : *Ammonites communis* Sowerby (J.), 1815) on the *Official List of Generic Names in Zoology* ;

(3) to place the under-mentioned generic names on the *Official Index of Rejected and Invalid Generic Names in Zoology* :—

(a) *Koinodactylites* Buckman, 1927 (a junior objective synonym of *Dactylioceras* Hyatt, 1867, the two genera each having *Ammonites communis* Sowerby (J.), 1815, as type species) ;

(b) *Dactyloceras* Fischer, 1879 (*J. Conchyliol.* **27** : 254) (an Erroneous Subsequent Spelling for *Dactylioceras* 1867) ;

(4) to place the specific name *communis* Sowerby (J.), 1815, as published in the combination *Ammonites communis*, as interpreted by the lectotype designated and figured by Arkell (W.J.) (1956) (specific name of type species of *Dactylioceras* Hyatt, 1867), on the *Official List of Specific Names in Zoology* ;

(5) to place the name DACTYLIOCERATIDAE (correction by Smith, 1913, (as DACTYLIOCERATINAE) of DACTYLOIDAE) Hyatt, 1867 (type genus : *Dactylioceras* Hyatt, 1867) on the *Official List of Family-Group Names in Zoology* ;

(6) to place the name DACTYLOIDAE Hyatt, 1867 (an Invalid Original Spelling for DACTYLIOCERATIDAE) on the *Official Index of Rejected and Invalid Family-Group Names in Zoology.*

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